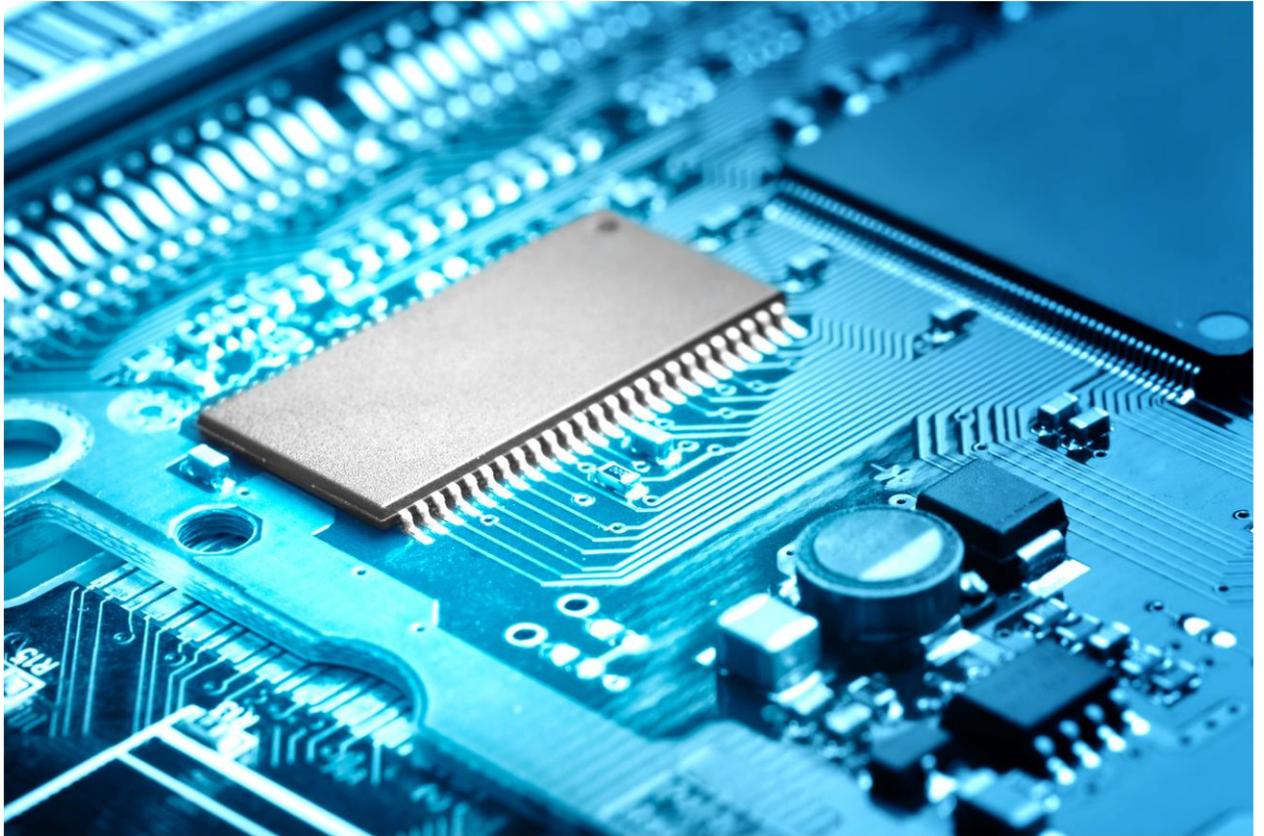


Patent Prosecution Legal Services Proposal

February 5, 2020



LYON & HARR
Intellectual Property: Patents, Trademarks, Copyrights

900 Avenida Acaso, Suite E,
Camarillo, California 93012

(805) 384-6435

CuttingEdgePatents.com

1.0 Executive Summary:

The attorneys of Lyon & Harr, LLP have prepared and prosecuted complex patent applications for large corporations, universities, and others over many years. In fact, all of our attorneys have at least twenty years of patent prosecution experience in addition to many years of real-world engineering experience. There are many reasons why using of our high-quality patent prosecution services would be advantageous to your company. For example:

- Our attorneys are skilled at reviewing invention disclosures and patentability assessments, including prior art searches. We are also quite adept at drafting, filing and prosecuting United States patent applications.
- We have extensive experience in the filing of PCT applications, and in coordinating with foreign counsel and managing foreign counterpart applications in many regions and countries around the world including Europe, China, India, Japan, among others.
- Our patent applications are crafted to be European Patent (EP) “friendly” in both format and substance, and are written with an eye toward complying with the European technical effects requirements. We have found that this facilitates the ISR/WO process when the EPO is selected as the searching authority and smooths the way for European associates to file and prosecute the application in Europe.
- We strive to write the highest quality patent applications, and try to minimize the time and effort that an in-house legal team and the inventors must spend to get these applications filed and issued.
- Our ability to handle the “tough” inventions involving complex algorithm-based technologies has been proven over many years.
- We have an excellent working relationship with our clients, their staff, foreign associates, researchers and outside inventors. Inventors often ask for us by name because we make the patenting experience an easy and pleasant one.
- We have extensive technical education and experience.
 - ✓ Our attorneys have cumulatively 40+ years of computer, electronics, networking, mechanical and other engineering work experience prior to becoming patent attorneys.
 - ✓ Our attorneys each have twenty or more years of experience in writing and prosecuting patent applications.
- Lyon & Harr, LLP is a woman-owned small business that thrives in the challenging environment of rapidly changing and evolving technologies, and we are ready, willing and able to adapt to your changing requirements and needs.

2.0 Our Areas of Expertise:

The attorneys of Lyon & Harr, LLP have written and prosecuted patent applications in a wide variety of technological fields, and we have provided these services to many major corporations.

Most notably, we have acted as outside counsel for Microsoft's research department for 20 years. We consider ourselves to be experts at preparing and prosecuting patent applications in a wide range of complex technologies.

Some of the high-tech companies that our attorneys have prepared and prosecuted patents for include: Microsoft, California Institute of Technology (Caltech), University of California, Northrop Grumman, Raytheon E-Systems, Applied Materials, Jet Propulsion Laboratory (JPL), Lockheed-Calcomp, the National Aeronautics and Space Administration (NASA), IBM, XIRCOM, SoilMoisture Equipment Corporation, G.T. Water Products, Inc., and Innovative Technology, Inc., among others.

Our attorneys have extensive technical education and experience prior to becoming patent attorneys, including years of computer, electronics, networking, mechanical and other engineering work experience. All our attorneys also have extensive experience in writing and prosecuting patents. A few of the technical areas for which our attorneys have prepared and prosecuted patents include:

- Computer Software
- Artificial Intelligence (AI) and Machine Learning
- Computer Hardware and Architecture
- Memory Allocation and Management
- Cybersecurity
- Cloud Computing
- Mobile Devices and Communications
- Electronics
- Electro-Optics
- Electro-Mechanics
- RF, IR and Satellite Communications
- Semiconductor Devices and Fabrication
- Material Sciences
- Medical Devices
- Automation
- Robotics
- Mechanical Devices
- Signal Processing
- Image and Audio Recording and Processing
- Augmented and Virtual Reality Systems
- Human-Computer Interfaces and Interaction
- Electromyography Based Device Controllers
- Behavioral Analytics
- Internet of Things (IoT) Devices and Control

3.0 Our Commitment:

We at Lyon & Harr, LLP believe in establishing a rapport with our client's legal team and inventors. One of our primary goals is to minimize the time and effort that our client and their inventors must invest to get good applications filed and issued with valuable claims. Inventors often ask for us by name because we make the patenting experience an easy and pleasant one.

Our attorneys take great pride in preparing high-quality patents in a timely manner. For example, it is our policy to have draft applications in the hands of the inventors for review at least one month in advance of the desired filing date. In addition, unless there are specific

reasons for a delay, we do not exceed the shortened statutory period set for filing responses to Office Actions.

We consider all of our projects and assignments to be a team effort, and we act together to provide the best possible result.

We can readily adapt to your current procedures and requirements, and are able to quickly implement future changes.

Lyon & Harr, LLP is comfortable working on either a fixed fee or an hourly basis, and has offered fixed fee services to our corporate clients for many years.

4.0 Team Composition and Experience:

Our legal team consists of three registered patent attorneys and one intellectual property attorney. These team members include:

4.1 Katrina A. (Harr) Lyon: Partner/Registered Patent Attorney

- Email: Katrina@CuttingEdgePatents.com
- Tel: (805) 384-6435



Katrina Lyon is a partner of Lyon & Harr, LLP and has been practicing patent and trademark law for approximately 20 years. Katrina has written and prosecuted hundreds of U.S. patent applications for major corporations, small businesses and local clients and has worked with patent attorneys all over the world to obtain international patent protection for her clients. She has been a patent attorney registered to practice before the U.S. Patent and Trademark Office since 1998 and is also admitted to the California Bar and the federal U.S. Central and Southern District Courts of California. (**See note below for details on Katrina's patent filings and issued patents for the past three years)

Katrina has expertise in various fields of computer software to include cloud and web-based computing, visual and audio human interactive proof (HIP) technologies and other security features, cryptography, RF and Wi-Fi technologies, speech recognition, translation and transliteration technologies, audio source localization and beam forming, image processing, computer graphics, audio recording and processing, data analysis, search-related technologies, user interfaces, object recognition and media streaming. She also has prepared and prosecuted many applications for various mechanical devices and has expertise in electronics, electro-optics, electro-mechanics, material sciences, medical devices, and infrared, RF and Wi-Fi communication systems.

Katrina grew up attending Department of Defense (DOD) schools overseas in Germany and is fluent in German. She moved to Michigan after high school where she obtained a mechanical engineering degree from Michigan State University before moving to California. She worked for 17 years as a mechanical and electronics engineer for the Navy where she programmed radar and missile simulations and directed land-based and shipboard system and battle group tests for the operational evaluation of high profile Navy systems. She obtained a Master of Science degree from the University of Southern California in Systems Management in 1989 with specialty options in Research and Development and Systems Technology, graduating in the top 4% of her class. She was valedictorian of her law school class at the Ventura and Santa Barbara College of Law in 1996.

In her free time Katrina enjoys xeriscaping her California garden, taking care of her family and dog, sharing a laugh with friends, home remodeling, and fixing broken things.

****NOTE:** In the past three years, Katrina has filed 21 patents. In addition, in the last three years, 23 patents previously filed by Katrina have issued as U.S. patents. Below is a list of some exemplary U.S. patents that were filed by Katrina and issued in the last three years.

- 9,727,161 Sensor Correlation for Pen and Touch-Sensitive Computing Device Interaction
- 9,679,199 Fusing Device and Image Motion for User Identification, Tracking and Device Association
- 9,372,553 Directional Force Sensing for Styli
- 9,171,403 Contour Completion for Augmenting Surface Reconstructions
- 9,158,925 Server-Aided Private Set Intersection (PSI) with Data Transfer
- 9,054,764 Sensor Array Beamformer Post-Processor

4.2 Richard T. Lyon: Partner/Registered Patent Attorney

- Email: Rick@CuttingEdgePatents.com
- Tel: (805) 384-6435



Richard Lyon is a partner of Lyon & Harr, LLP and has been practicing patent and trademark law for 25 years. He is a registered patent attorney, being registered to practice before the U.S. Patent and Trademark Office since 1992. He is also admitted to the California and Washington D.C. Bars, as well as the federal U.S. Central and Southern District Courts of California.

Richard has written and prosecuted hundreds of patent applications for major corporations and universities such as Microsoft, Applied Materials, NASA, the Jet Propulsion Laboratory, Northrop Grumman, Caltech, the University of California, Raytheon, Lockheed-Calcomp.

Richard also specializes in providing patent and trademark services to local clients and businesses.

(**See the note below for more details on Richard's patent filings and issued patents for the past three years)

Rick's patent expertise extends to the fields of computer software, artificial intelligence (AI), neural networks, signal processing; video and audio coding; audio source localization and beamforming; data analysis; software UI; browser components; object recognition, classification, and extraction; pattern identification and tracking; packet-based communications and media streaming; machine translation systems; RFID-based applications; data compression; video conferencing; face tracking and recognition; image correction; texture synthesis; data mining; cloud and web-based computing; RF and Wi-Fi technologies; speech recognition technologies; transliteration technologies, computer hardware and architecture; electronics; electro-optics; electro-mechanics; material sciences; satellite communications; robotics; semiconductor devices and fabrication; medical devices; infrared communications systems. Rick has also assisted clients in filing and prosecuting over 100 trademark applications for a variety of business in Ventura and Santa Barbara counties.

Richard hails from Kansas where he obtained an engineering degree from the University of Kansas before moving to California in 1982. He worked for 10 years as an electronics engineer for the Department of Defense where he led a project team tasked with the analysis and testing of various naval missile systems. He was valedictorian of his law school class.

Richard prides himself on a strong work ethic and honesty in helping his clients obtain intellectual property protection in a cost-effective manner.

****NOTE:** In the past three years, Richard has filed 55 patents. In addition, in the last three years, 54 patents previously filed by Richard have issued as U.S. patents. Below is a list of some exemplary U.S. patents that were filed by Richard and issued in the last three years.

- 9,737,990 Program Synthesis for Robotics Tasks
- 9,671,468 Battery with Computing, Sensing, and Communication Capabilities
- 9,651,944 Unmanned Aerial Vehicle Piloting Authorization
- 9,524,392 Encrypting Genomic Data for Storage and Genomic Computations
- 9,235,799 Discriminative Pretraining of Deep Neural Networks

4.3 **Mark A. Watson**: Patent Attorney

- Email: MarkW@CuttingEdgePatents.com
- Tel: (805) 384-6435



Mark Watson is a senior attorney of Lyon & Harr, LLP and has been practicing patent and trademark law for 20 years. Mark has been a registered patent attorney with the U.S. Patent and Trademark Office since 1997 and was admitted to the California Bar in 1997. Mark also regularly works with attorneys in various countries to assist in shepherding international patent applications through the patent offices in Europe, China, and elsewhere.

Mark has written and prosecuted hundreds of patent applications for major corporations, small businesses and local clients. To date, approximately 200 of those patent applications have been issued as U.S. patents, with many more still pending at the U.S. Patent and Trademark Office. The subject matter of patent applications written and prosecuted by Mark span a wide range of technologies. Some of these technologies include virtual reality (VR) and augmented reality (AR) hardware and software; machine learning and classification systems; communications software; image processing; computer graphics; audio recording and processing; data analysis; query and search-related technologies; software UI; browser components; object recognition; pattern identification and tracking; packet-based communications and media streaming; P2P-based applications; RF and Wi-Fi technologies; video-based security; speech recognition technologies; natural user interface hardware and software for interacting with devices via various combinations of voice, touch and gesture-based commands; audio source localization and beamforming; computer hardware and architecture; electronics; electro-optics; electro-mechanics; robotics; medical devices; infrared communications systems; mechanical devices; and many others. (**See the note below for more details on Mark's patent filings and issued patents for the past three years)

Mark was born and raised in Southern California. Mark obtained his engineering degree from California State University, Northridge in 1987. He then worked as a mechanical engineer for the U.S. Navy for 13 years. During his time as a civilian engineer for the Navy, Mark served as Test Director and Project Engineer for operational and survivability testing of multiple DOD and NATO weapons systems in various simulated environments, land-based environments and shipboard environments. In addition, during this time, Mark coded several data collection and analysis software programs for use by various U.S. Navy testing facilities in evaluating weapon system survivability.

Whenever he isn't busy working with patent applications, Mark enjoys spending time with his family and friends, cooking, building furniture, reading science fiction, and working to remodel his house.

****NOTE:** In the past three years, Mark has filed 34 patents. In addition, in the last three years, 45 patents previously filed by Mark have issued as U.S. patents. Below is a list of some exemplary U.S. patents that were filed by Mark and issued in the last three years.

- 9,792,248 Fast Read/Write Between Networked Computers Via RDMA-Based RPC Requests
- 9,608,284 Dynamically Controlled Heat Exchange for Cascading Startup of Fuel Cell Grids
- 9,489,512 TrustZone-Based Integrity Measurements and Verification using a Software-Based Trusted Platform Module
- 9,436,502 Eventually Consistent Storage and Transactions in Cloud Based Environment
- 9,323,429 Interactive Virtual Display System
- 9,088,510 Universal Rate Control Mechanism with Parameter Adaptation for Real-Time Communication

4.4 Ashley E. Steinbach: Intellectual Property Attorney

- Email: Ashley@CuttingEdgePatents.com
- Tel: (805) 384-6435



Ashley Steinbach is an intellectual property attorney at Lyon & Harr, LLP and has been practicing trademark law since he was admitted to the California Bar in 2003.

Ashley counsels clients on trademark matters and files and prosecutes trademark applications for clients including small businesses and startups. Ashley has also worked on appeals before the Trademark Trial and Appeal Board defending the right of federal trademark registration. In addition, Ashley has worked on both sides of the coin in claims filed under the Uniform Domain-Name Dispute-Resolution Policy, both defending against and asserting claims under the UDRP.

Ashley has lived most of his life on the land mass between San Francisco and San Diego, with a brief stint in Denver, Colorado. He obtained a B.S. in Cognitive Science with a Specialization in Neuroscience from the University of San Diego before heading up to the University of San Francisco School of Law to obtain his J.D. In his free time Ashley enjoys photography, hiking and home brewing.

5.0 Strategic Partnership:

We at Lyon & Harr, LLP believe forming a strategic partnership with our clients can reduce costs, while still providing high quality IP protection. This strategic partnership would entail working

together on decisions regarding filing, ongoing prosecution, maintenance and claim scope commensurate with the importance of each invention to the client. We have several ideas for strategic prosecution that can meet these objectives:

- Eliminating costs associated with pursuing a patent application that results in allowed claims that do not achieve the client's goals is one area where a strategic partnership would be advantageous. Whether these goals involve enticing a particular licensee to license a patent or obtaining claims that protect a commercially viable product, understanding the desired outcome at the outset is key. We will work with you and your inventors to identify the desired goals before drafting the application. In this way, not only can the claims of the patent application be tailored to the identified goals, but any claim changes contemplated during prosecution can be weighed against these goals. For example, it may be better to appeal rather than amend the claims in a manner detrimental to the desired goals.
- Reducing costs associated with filing repeated requests for continued prosecution (RCEs). We have found that filing an after-final response to a final rejection, followed by an examiner interview, often provides better results than simply filing an RCE.
- The time from filing a patent application to its issuance as a patent is often an important consideration. In cases where time is of the essence, we have an idea for expediting the prosecution. We have observed that if office actions are responded to immediately (e.g., within a week of their mailing date), an Examiner will more often than not take it up right away while the case is still fresh in his or her mind. Reducing the time between office actions speeds up the process and allows for issues to be resolved quickly. This can result in an expedited allowance of the application.
- A strategic partnership with regard to patent prosecution also requires a realistic approach. If the art cited against an application makes achieving the desired goals or desired claims scope unrealistic, we would not be hesitant to recommend abandoning a case to reduce or eliminate additional costs.

6.0 Summary:

We would like to offer our high-quality patent services to help grow and protect your intellectual property portfolio. More information about us is available online at CuttingEdgePatents.com. I also invite you to search the USPTO's database for some of the patents having Lyon & Harr, LLP as the attorneys of record (type: *lrep/(Lyon and Harr)* in the Query field on the USPTO's advanced patent search page at <http://patft.uspto.gov/netahtml/PTO/search-adv.htm>). The included brochure contains further information about our law firm, our attorneys, and our support staff.

To learn more about our services, please either call Richard Lyon at (805) 384-6435 or email Richard at Rick@CuttingEdgePatents.com.